Data Collection

Part 1

Module 6

ESC Cost Core Training

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Primary vs. Secondary Data

- Primary data - from the original source of the data - best in quality

- Secondary data - not directly from the source - derived from the original/primary data

Seven Basic Sources of Data

1. **Contractor's Accounting System**	- Primary
2. **Contracts**	- Secondary
3. **Contractor Proposals**	- Secondary
4. **Contractor Cost Reports**	- Secondary
5. Historical Data Bases	- Either *
6. Functional Specialists	- Either *
7. Other Organizations & Agencies	- Either *

* depends on the source

Seven Basic Sources of Data (cont'd)

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5. **Historical Data Bases**	- Either *
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Before Going to the Contractor's Plant Collect & Analyze the Data:

- **Become knowledgeable about the program**
- **Obtain PM & PCO approval**
- Have PM contact Contractor first
- Contact the Contractor's focal point
- Contact DCM & DCAA representatives
- Send confirmation fax/email to Contractor
- Organize the cost team

Before Going to the Contractor's Plant Collect & Analyze the Data (cont'd)

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- **Organize the cost team**

At the Contractor's Plant

- In-Briefs
- Be Persistent
- Review All Data
- Short Daily Meetings
- Out-Briefs

Contractor's Accounting System

- **Direct Cost**
  - **Labor**
  - **Material**
  - **Other**
- Overhead
- General & Administrative (G&A)
- Fee vs. Profit

Contractor's Accounting System (cont'd)

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  - Labor
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Example of Building a Cost

FOR	Engineering	: 100 hours
	Manufacturing	: 200 hours
	Material	: $3000
Engineering Direct Rate		= $25 per hour
Manufacturing Direct Rate		= $18 per hour
Engineering O/H Rate		= 120%
Manufacturing O/H Rate		= 190%
Material Overhead		= 10%
G&A		= 12%
Fee		= 7%

Calculation Example

Engineering: 100 hrs x direct rate x (overhead rate + 100%) = 100 x $25/hr x 2.2 = **5.5K**

Manufacturing: 200 hrs x direct rate x (o/h rate + 100%) = 200 x $18/hr x 2.9 = **10.4K**

Material: 3K x (overhead rate + 100%) = 3K x 1.1 = **3.3K**

G&A: [5.5 + 10.4 + 3.3] x 12% = **2.3K**

Fee: [5.5 + 10.4 + 3.3 + 2.3] x 7% = **1.5K**

Total = ENG + MAN + MAT + G&A + Fee = 23K
5.5 10.4 3.3 2.3 1.5

Understanding Differences in…

- Overhead Rates
- Labor Hours

Mapping Contractor Accounting System into WBS

- How did the Contractor decide to map the functional labor categories into the CWBS?
- How much of each labor category goes into each CWBS element?
- Were the costs mapped correctly?
- How are all the engineering hours accounted for?
- How was the data from the subcontractor mapped into the Prime’s accounting system?

Normalize for Differences

- The costs obtained from the Contractor's accounting system need to be normalized for inflation.
- Historical actuals might need to be normalized to the Program Base Year.
- Costs might need to be normalized for differences in quantities and learning curve slopes.